

SEQUENCE LISTING

<110> Xiao, Yonghong
Gedrich, Richard

<120> Regulation of Human transmembrane Serine
Protease

<130> 02973.00035

<150> US 60/211,224

<151> 2000-06-13

<150> US 60/283,353

<151> 2001-04-13

<150> US 60/283,648

<151> 2001-04-16

<150> PCT _____ (Docket No. LIO-81-WO)

<151> 2001-06-12

<160> 36

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 402

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(402)

<223> n = A,T,C or G

<400> 1

aatgcccttc ccagcgggat atctccctcc agtgttccca ctgcggactg agggccatga	60
ccgggcggat cgtgggaggg gcgttgccct cggatagcaa gtggccttgg caagtgagcc	120
tgcacttcgg caccacccac atctgtggag gcacgctcat tgacgccag tgggtgtca	180
ctnccgcca ctgcttcttc gtgnaccgag gagaagggtcc tggagggtg gaagggtgtac	240
gcgggcacca gcaacctgca ccagttgcct gaggcagcct ccattgccga gatcatcatc	300
aacagcaatt acaccgatga ggaggacgac tatgacatcg cctcatgcg gctgttcaag	360
ncccttgacc ctgttcgggt gaggaattt tgcatttccc gt	402

02973.00035
LBRI-147
LIO-81

<210> 2
 <211> 285
 <212> DNA
 <213> Homo sapiens

<400> 2
 ccatgaccgg ggggatcgtg ggagggggcgc tggcctcgga tagcaagtgg ccttggcaag 60
 tgagtctgca cttcggcacc acccacatct gtggaggcac gctcattgac gcccagtggg 120
 tgctcactgc cgcccactgc ttcttcgtga cccgggagaa ggctcctggag ggctggaagg 180
 tgtaogcggg caccagcaac ctgcaccagt tgcctgaggc agcctccatt gccgagatca 240
 tcatcaacag caattacacc gatgaggagg acgactatga catcg 285

<210> 3
 <211> 600
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(600)
 <223> n = A,T,C or G

<400> 3
 gagggctgga aggtgtacgc gggcaccagc aacctgcacc agttgcctga ggcagcctcc 60
 attgccgaga tcatcatcaa cagcaattac accgatgagg aggacgacta tgacatcgcc 120
 ctcatgcggc tgtccaagcc cctgaccctg tccggtgagg gaatctgcac tccccgtct 180
 cctgcccccc agccccagca ccctctgcag ccctcgcaact tgtcagcatc tgtcaactca 240
 tatccggggc ccaaagcttc tgcagggcag aagtcaaaga ctcttaaaga tccttacatg 300
 gaacacttct gttttataat tagggaaact gaagcccaag gggttataaat aagtttgctc 360
 caaatgacac atctcacatt acaaattgat gacggagtca gggcttgagg actgatctta 420
 atcaatagat tgaattcttt cactgggtatt aactgagcac ctagggggcca aacgctatgg 480
 taggcatttc acacatatga tttcatttac tcttcacaac caaccctgtg gagcaggcac 540
 tattattaac ttcatttgac atatgangaa atggagcttt acagagagat aattacctga 600

<210> 4
 <211> 591
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(591)
 <223> n = A,T,C or G

<400> 4
 gagggctgga aggtgtacgc gggcaccagc aacctgcacc agttgcctga ggcagcctcc 60
 attgccgaga tcatcatcaa cagcaattac accgatgagg aggacgacta tgacatcgcc 120
 ctcatgcggc tgtccaagcc cctgaccctg tccggtgagg gaatctgcac tccccgtct 180
 cctgcccccc agccccagca ccctctgcag ccctcgcaact tgtcagcatc tgtcaactca 240
 tatccggggc ccaaagcttc tgcagggcag aagtcaaaga ctcttaaaga tccttacatg 300
 gaacacttct gttttataat tagggaaact gaagcccaag gggttataaat aagtttgctc 360
 caaatgacac atctcacatt acaaattgat gacggagtca gggcttgagg actgatctta 420

02973.00035
 LBRI-147
 LIO-81

atcaatagat	tgaattcttt	cactggtatt	aactgagcac	ctagggggcca	aacgctatgg	480
taggcatttc	acacatatga	tttcatttac	tcttcacaac	caaccctgtg	gagcangcac	540
tattattaac	ttcatttgac	atatgangaa	atggagcttt	acagagagat	a	591

<210> 5
 <211> 286
 <212> DNA
 <213> Homo sapiens

<400> 5						
gcgatgtcat	agtcgtcctc	ctcatcggcg	taattgctgt	tgatgatgat	ctcggcaatg	60
gaggctgcct	caggcaactg	gtgcaggttg	ctggtgcccg	cgtaacacct	ccagccctcc	120
aagaccttct	cccgggtcac	gaagaagcag	tggcggcag	tgagcaccca	ctgggcgtca	180
atgagcgtgc	ctccacagat	gtgggtggtg	ccgaagtgt	gactcaactg	ccaaggccac	240
ttgctattcg	aggccagcgc	cccttcacg	attcgcccgg	tcatgg		286

<210> 6
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 6						
gagggctgga	aggtgtacgc	gggcaccagc	aacctgcacc	agttgcctga	ggagcctcca	60
ttgccgagat	catcatcaac	agcaattaca	ccgatgagga	ggacgactat	gacatcgccc	120
tcatgcggct	gtccaagccc	ctgacctgt	ccggtgaggg	aactctgact	ccccgctctc	180
ctgcccccca	gccccagcac	cctctgcagc	cctcgcaact	gtcagcatct	gtcaactcat	240
atccggggccc	caaagcttct	gcagggcaga	agtcaaagac	tcttaaagat	ccttacatgg	300
aacacttctg	ttttataatt	agggaaactg	aagcccaagg	gttataaata	agtttgctcc	360
aatgacaca	tctcacatta	caaa				384

<210> 7
 <211> 471
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(471)
 <223> n = A,T,C or G

<400> 7						
tttttttttt	nttttttttt	ttggagcaaa	cttatttana	acccttgggc	ttcagttnc	60
ctaattataa	aacagaagtn	tnccatgtaa	ggnncttnaa	gagtctttga	cttctgccct	120
gcagaagctt	tggggcccg	atatgagttg	acagatgctg	acaagtgcga	gggctgcaga	180
gggtntctgg	gctggggggc	aggagagcgg	ggagtgcaga	ttccctcacc	ggacagggtc	240
aggggnttgg	acagccgcat	gagggcgatg	tcatagtcgt	cctcctcacc	ggtgtaattn	300
ctnttgatga	tgatctcggc	aatggaggct	gcctcaggca	actgggtnc	ggtntctggg	360
tnccncgta	acaccttcca	gccttcagg	nccttttccc	gggtcacgaa	gaagcagtn	420
ggccgcaatt	agcaccact	gggggtcaat	gaggtgccc	ccacanattt	g	471

02973.00035
 LBRI-147
 LIO-81

<210> 8
 <211> 235
 <212> DNA
 <213> Homo sapiens

<400> 8
 gggctggaag gtgtacgcgg geaccagcaa cctgcaccag ttgcctgagc agcctccatt 60
 gccgagatca tcatcaacag caattacacc gatgaggagg acgactatga catcgccctc 120
 atgcggctgt ccaagcccct gaccctgtcc ggtgaggga tctgcactcc ccgctctcct 180
 gccccccagc cccagcacc cctgcagccc tcgcacttgt cagcatctgt caact 235

<210> 9
 <211> 19
 <212> DNA
 <213> Homo sapiens

<400> 9
 ctgccagcag ctgggttttc 19

<210> 10
 <211> 20
 <212> DNA
 <213> Homo sapiens

<400> 10
 aggctttcct ggatggtgga 20

<210> 11
 <211> 1748
 <212> DNA
 <213> Homo sapiens

<400> 11
 ctcagagacc atggagaggg acagccacgg gaatgcatct ccagcaagaa caccttcagc 60
 tggagcatct ccagcccagg catctccagc tgggacacct ccagggccggg catctccagc 120
 ccaggcatct ccagcccagg catctccagc tgggacacct ccggggccggg catctccagc 180
 ccaggcatct ccagctggta cacctccagg ccgggcatct ccagggccggg catctccagc 240
 ccaggcatct ccagcccggg catctccggc tctggcatca ctttccagg cctcatccgg 300
 caggatcatca tccgccagg cagcctcggg gacaacctcc ccaaccagag tgtacctgt 360
 tagagcaaca ccagtggggg ctgtacccat ccgatcatct cctgccagg cagcaccagc 420
 aaccaggggc accagggaga gccaggtac gagcctgccc aagttcacct ggccgggagg 480
 ccagaagcag ctaccgctca tccgggtgct gctcctcctc attgccctgg tggtttcgct 540
 catcatcctc ttccagttct ggcagggcca cacagggatc aggtacaagg agcagaggga 600
 gagctgtccc aagcacgctg ttcgctgtga cggggtggg gactgcaagc tgaagagtga 660
 cgagctgggc tgcgtgagg ttgactggga caagtctctg cttaaaatct actctgggtc 720
 ctcccatcag tggcttccca tctgtagcag caactggaat gactcctact cagagaagac 780
 ctgccagcag ctgggttttc agagtgtca ccggacaacc gaggttgccc acagggattt 840
 tgccaacagc ttctcaatct tgagatacaa ctccaccatc caggaaagcc tccacaggtc 900
 tgaatgccct tcccagcggg atatctccct ccagtgttcc cactgcccag tgagggccat 960
 gaccgggcgg atcgtgggag gggcgctggc ctcggatagc aagtggcctt ggcaagtga 1020
 tctgcacttc ggcaccacc acatctgtgg aggcacgctc attgacgccc agtgggtgct 1080
 cactgccgcc cactgcttct tcgtgacccg ggagaaggtc ctggagggct ggaagggtga 1140

02973.00035
 LBRI-147
 LIO-81

```

cgcggggcacc agcaacctgc accagttgcc tgaggcagcc tccattgccg agatcatcat 1200
caacagcaat tacaccgatg aggaggacga ctatgacatc gccctcatgc ggctgtccaa 1260
gcccctgacc ctgtccgctc acatccaccc tgcttgctc cccatgcatg gacagacctt 1320
tagcctcaat gagacctgct ggatcacagg ctttggaag accagggaga cagatgacaa 1380
gacatcccc ttctccggg aggtgcaggt caatctcatc gacttcaaga aatgcaatga 1440
ctacttggtc tatgacagtt accttaccac aaggatgatg tgtgctgggg accttcgtgg 1500
gggcagagac tctgccagg gagacagcgg ggggcctctt gtctgtgagc agaacaaccg 1560
ctggtacctg gcaggtgtca ccagctgggg cacaggctgt ggccagagaa acaaacctgg 1620
tgtgtacacc aaagtgcag aagttcttcc ctggatttac agcaagatgg agagcgaggt 1680
gcgattcaga aaatcctaac cagctggcct gctgctctgc acagcaccgg ctgctgtgac 1740
tcgagaaa 1748

```

```

<210> 12
<211> 562
<212> PRT
<213> Homo sapiens

```

```

<400> 12
Met Glu Arg Asp Ser His Gly Asn Ala Ser Pro Ala Arg Thr Pro Ser
1      5      10      15
Ala Gly Ala Ser Pro Ala Gln Ala Ser Pro Ala Gly Thr Pro Pro Gly
20      25      30
Arg Ala Ser Pro Ala Gln Ala Ser Pro Ala Gln Ala Ser Pro Ala Gly
35      40      45
Thr Pro Pro Gly Arg Ala Ser Pro Ala Gln Ala Ser Pro Ala Gly Thr
50      55      60
Pro Pro Gly Arg Ala Ser Pro Gly Arg Ala Ser Pro Ala Gln Ala Ser
65      70      75      80
Pro Ala Arg Ala Ser Pro Ala Leu Ala Ser Leu Ser Arg Ser Ser Ser
85      90      95
Gly Arg Ser Ser Ser Ala Arg Ser Ala Ser Val Thr Thr Ser Pro Thr
100     105     110
Arg Val Tyr Leu Val Arg Ala Thr Pro Val Gly Ala Val Pro Ile Arg
115     120     125
Ser Ser Pro Ala Arg Ser Ala Pro Ala Thr Arg Ala Thr Arg Glu Ser
130     135     140
Pro Gly Thr Ser Leu Pro Lys Phe Thr Trp Arg Glu Gly Gln Lys Gln
145     150     155     160
Leu Pro Leu Ile Gly Cys Val Leu Leu Leu Ile Ala Leu Val Val Ser
165     170     175
Leu Ile Ile Leu Phe Gln Phe Trp Gln Gly His Thr Gly Ile Arg Tyr
180     185     190
Lys Glu Gln Arg Glu Ser Cys Pro Lys His Ala Val Arg Cys Asp Gly
195     200     205
Val Val Asp Cys Lys Leu Lys Ser Asp Glu Leu Gly Cys Val Arg Phe
210     215     220
Asp Trp Asp Lys Ser Leu Leu Lys Ile Tyr Ser Gly Ser Ser His Gln
225     230     235     240
Trp Leu Pro Ile Cys Ser Ser Asn Trp Asn Asp Ser Tyr Ser Glu Lys
245     250     255
Thr Cys Gln Gln Leu Gly Phe Glu Ser Ala His Arg Thr Thr Glu Val
260     265     270

```

02973.00035
LBRI-147
LIO-81

<210> 14
 <211> 492
 <212> PRT
 <213> Homo sapiens

<400> 14

Met	Ala	Leu	Asn	Ser	Gly	Ser	Pro	Pro	Ala	Ile	Gly	Pro	Tyr	Tyr	Glu
1				5					10					15	
Asn	His	Gly	Tyr	Gln	Pro	Glu	Asn	Pro	Tyr	Pro	Ala	Gln	Pro	Thr	Val
			20					25					30		
Val	Pro	Thr	Val	Tyr	Glu	Val	His	Pro	Ala	Gln	Tyr	Tyr	Pro	Ser	Pro
		35					40					45			
Val	Pro	Gln	Tyr	Ala	Pro	Arg	Val	Leu	Thr	Gln	Ala	Ser	Asn	Pro	Val
		50				55					60				
Val	Cys	Thr	Gln	Pro	Lys	Ser	Pro	Ser	Gly	Thr	Val	Cys	Thr	Ser	Lys
65					70					75					80
Thr	Lys	Lys	Ala	Leu	Cys	Ile	Thr	Leu	Thr	Leu	Gly	Thr	Phe	Leu	Val
				85					90					95	
Gly	Ala	Ala	Leu	Ala	Ala	Gly	Leu	Leu	Trp	Lys	Phe	Met	Gly	Ser	Lys
			100					105					110		
Cys	Ser	Asn	Ser	Gly	Ile	Glu	Cys	Asp	Ser	Ser	Gly	Thr	Cys	Ile	Asn
		115					120					125			
Pro	Ser	Asn	Trp	Cys	Asp	Gly	Val	Ser	His	Cys	Pro	Gly	Gly	Glu	Asp
		130				135					140				
Glu	Asn	Arg	Cys	Val	Arg	Leu	Tyr	Gly	Pro	Asn	Phe	Ile	Leu	Gln	Met
145					150					155					160
Tyr	Ser	Ser	Gln	Arg	Lys	Ser	Trp	His	Pro	Val	Cys	Gln	Asp	Asp	Trp
				165					170					175	
Asn	Glu	Asn	Tyr	Gly	Arg	Ala	Ala	Cys	Arg	Asp	Met	Gly	Tyr	Lys	Asn
			180					185					190		
Asn	Phe	Tyr	Ser	Ser	Gln	Gly	Ile	Val	Asp	Asp	Ser	Gly	Ser	Thr	Ser
		195				200						205			
Phe	Met	Lys	Leu	Asn	Thr	Ser	Ala	Gly	Asn	Val	Asp	Ile	Tyr	Lys	Lys
		210				215					220				
Leu	Tyr	His	Ser	Asp	Ala	Cys	Ser	Ser	Lys	Ala	Val	Val	Ser	Leu	Arg
225				230						235					240
Cys	Leu	Ala	Cys	Gly	Val	Asn	Leu	Asn	Ser	Ser	Arg	Gln	Ser	Arg	Ile
				245					250					255	
Val	Gly	Gly	Glu	Ser	Ala	Leu	Pro	Gly	Ala	Trp	Pro	Trp	Gln	Val	Ser
			260					265					270		
Leu	His	Val	Gln	Asn	Val	His	Val	Cys	Gly	Gly	Ser	Ile	Ile	Thr	Pro
		275					280					285			
Glu	Trp	Ile	Val	Thr	Ala	Ala	His	Cys	Val	Glu	Lys	Pro	Leu	Asn	Asn
		290				295					300				
Pro	Trp	His	Trp	Thr	Ala	Phe	Ala	Gly	Ile	Leu	Arg	Gln	Ser	Phe	Met
305					310					315					320
Phe	Tyr	Gly	Ala	Gly	Tyr	Gln	Val	Gln	Lys	Val	Ile	Ser	His	Pro	Asn
				325					330					335	
Tyr	Asp	Ser	Lys	Thr	Lys	Asn	Asn	Asp	Ile	Ala	Leu	Met	Lys	Leu	Gln
			340					345					350		
Lys	Pro	Leu	Thr	Phe	Asn	Asp	Leu	Val	Lys	Pro	Val	Cys	Leu	Pro	Asn
		355					360					365			

02973.00035
 LBRI-147
 LIO-81

Pro Gly Met Met Leu Gln Pro Glu Gln Leu Cys Trp Ile Ser Gly Trp
 370 375 380
 Gly Ala Thr Glu Glu Lys Gly Lys Thr Ser Glu Val Leu Asn Ala Ala
 385 390 395 400
 Lys Val Leu Leu Ile Glu Thr Gln Arg Cys Asn Ser Arg Tyr Val Tyr
 405 410 415
 Asp Asn Leu Ile Thr Pro Ala Met Ile Cys Ala Gly Phe Leu Gln Gly
 420 425 430
 Asn Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Thr Ser
 435 440 445
 Asn Asn Asn Ile Trp Trp Leu Ile Gly Asp Thr Ser Trp Gly Ser Gly
 450 455 460
 Cys Ala Lys Ala Tyr Arg Pro Gly Val Tyr Gly Asn Val Met Val Phe
 465 470 475 480
 Thr Asp Trp Ile Tyr Arg Gln Met Lys Ala Asn Gly
 485 490

<210> 15
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL00495

<400> 15
 Ala Gly Gly Gly Asp Cys Gly Asp Ser Gly Gly Pro Leu Val Cys Asn
 1 5 10 15
 Arg Trp Leu Gly Thr Ser Trp
 20

<210> 16
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL1253G

<400> 16
 Asp Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys
 1 5 10

02973.00035
 LBRI-147
 LIO-81

<210> 17
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL00134A

<400> 17
 Cys Gly Gly Thr Leu Ile Asp Ala Gln Trp Val Leu Thr Ala Ala His
 1 5 10 15
 Cys

<210> 18
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL00021D

<400> 18
 Gly Pro Leu Val Cys Glu Gln Asn Asn Arg Trp Tyr Leu Gly Val Thr
 1 5 10 15
 Ser Trp Gly Gly Cys Gly Gln Arg Asn Lys Pro Gly Val Tyr Thr Lys
 20 25 30
 Val Thr Leu Pro Trp Ile
 35

<210> 19
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL01243H

<400> 19
 Tyr Leu Gly Ser Trp Gly Gly Cys Gly Gln Arg Asn Lys Pro Gly Val
 1 5 10 15
 Tyr Thr Lys Val Thr Leu Trp Ile
 20

02973.00035
 LBRI-147
 LIO-81

<210> 20
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL00021B

<400> 20
 Cys Gly Gly Thr Leu Ile Asp Gln Trp Val Leu Thr Ala Ala His Cys
 1 5 10 15
 Phe

<210> 21
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL004950

<400> 21
 Gly Gly Cys Gly Gln Arg Pro Gly Val Tyr Thr Lys Val Glu Trp Ile
 1 5 10 15
 Lys Ala

<210> 22
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL00134B

<400> 22
 Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Glu Asn Asn
 1 5 10 15
 Arg Trp Tyr Leu Ala Gly Val
 20

TOP-2000

02973.00035
 LBRI-147
 LIO-81

<210> 23
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> BLOCKS BL01209

<400> 23
Cys Asp Gly Val Val Asp Cys Lys Lys Ser Asp Glu
1 5 10

<210> 24
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> BLOCKS BL01253F

<400> 24
Ala Ser Phe Leu Arg Glu Gln Val Leu Lys Cys Val Tyr Ser Thr Pro
1 5 10 15
Met Cys Ala Gly
20

<210> 25
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> BLOCKS BL00495L

<400> 25
Ser Ser Ile Glu Ile Ile Ile Asn Tyr Glu Tyr Asp Ile Ala Leu Leu
1 5 10 15
Pro

<210> 26
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> BLOCKS BL00134C

<400> 26
Pro Gly Val Tyr Thr Lys Val Thr Glu Val Leu Pro Trp Ile
1 5 10

02973.00035
LBRI-147
LIO-81

<210> 27
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> BLOCKS BL01253D

<400> 27
 Cys Gly Gly Leu Ile Trp Val Leu Thr Ala
 1 5 10

<210> 28
 <211> 834
 <212> DNA
 <213> Homo sapiens

<400> 28
 gctgggctgc gtgagggttg actgggacaa gtctctgctt aaaatctact ctgggtcctc 60
 ccatcagtggt cttcccatct gtagcagcaa ctggaatgac tcctactcag agaagacctg 120
 ccagcagctg ggtttcgaga gtgctcaccg gacaaccgag gttgcccaca gggattttgc 180
 caacagcttc tcaatcttga gatacaactc caccatccag gaaagcctcc acaggtctga 240
 atgcccttcc cagcgggtata tctccctcca gtgttcccac tgcggactga gggccatgac 300
 cgggcggtac gtgggagggg cgctggcctc ggatagcaag tggccttggc aagtgagtct 360
 gcacttcggc accaccaca tctgtggagg cacgctcatt gacgcccagt ggggtgtcac 420
 tgccgcccac tgcttcttcg tgaccgagg gaaggtcctg gagggctgga aggtgtacgc 480
 gggcaccagc aactgcacca gttgcctgag gcagctccat tgccgagatc atcatcaaca 540
 ccaattacac cgatgaggag gacgactatt gacatcgccc tcatgcggtt gttccaagcc 600
 cctgaacctg tccgtcacat ccacctgct tgcctcccc atgcatggac agacctttag 660
 cctcaatgag acctgttga tcacaggctt tggcaaagac agggagacag atgaaaagac 720
 atcccccttc ctggggagggt gcaggtcaat ctcatcgact tccagaaatg caatgactaa 780
 ctggtctatg acagtacctt acccaaggat gatgtgtgtg gggaacttcg tggg 834

<210> 29
 <211> 621
 <212> DNA
 <213> mouse

<400> 29
 agatcatcat ctgccagggtc agcctccacg acatcctccc caacgagagt gtaccttggt 60
 agagcaacac cagtggggggc tgtcccatc cgggcatctc ctgccagggtc agcaccagcc 120
 accagggcca ccagggtaga gccagggtct cagtttcccc aagttctcct ggtcaggaga 180
 ccagaggcca gctgccactc atcgggtgtg tcatccttct catcagcctg gtgatctcgc 240
 tcatccttct cttctacttc tggagagtgc cacacaggga tcaagtacaa agagccactg 300
 gagagttgcc ctatccacgc agttcgctgt gatggagtgg tggacttgca aaatgaagag 360
 cgatgagctg ggctgtgtca ggttcgactg ggacaagtcc ctctgaaaag tctactctgg 420
 gtcttctggc agagtggctt cctgtctgca gcagcagcgg aacgacactg actccaagag 480
 gacctgccag caagctggga tttgacagcg cttaccgaac aactgaggta gcccacagag 540
 acatcaccag cagcttctaa ctctcgaaa caaaacaaca tccaggaaa gctctacagg 600
 togaatgtct tccggcggat g 621

02973.00035
 LBRI-147
 LIO-81

<210> 30
 <211> 678
 <212> DNA
 <213> mouse

<400> 30
 tcagcctcca cgacatcctc cccaacgaga gtgtaccttg ttagagcaac accagtgggg 60
 gctgtcccca tccgggcata tcttgccagg tcagcaccag ccaccagggc caccagggag 120
 agcccagggtc tcagtttccc caagtttctc tggcaggaga ccagaggga gctgccactc 180
 atcgggtgtg tcatccttct catcagcctg gtgatctgc tcatccttct cttctacttc 240
 tggagaggcc acacagggat caagtacaaa gagccactgg agagttgcc tatccacgca 300
 gttcgctgtg atggagtggg ggaactgcaa atgaagagcg atgagctggg ctgtgtcagg 360
 ttcgactggg acaagtccct cctgaaagtc tactctgggt cttctggcga gtggcttcct 420
 gctcgcagca gcagctggaa cgacactgac tccaagagga cctgccagca gctgggattt 480
 gacagcgctt accgaacaac tgaggtagcc cacaggaaca tcaccagcag cttcttactc 540
 tccgaataca acaccaccat ccaggaaagc ctctacaggt cgcaatgtcc ttccggcggt 600
 atgtctccct ccagtgttcc cacgtggttt ggagctatga cgggcggacg aggaggggtc 660
 gacctcgaag catgcctg 678

<210> 31
 <211> 577
 <212> DNA
 <213> mouse

<400> 31
 aagttttgat tacgcgcttt ctgcaattga tctcttggtt tttaaaccaa cggtttcagg 60
 tcaatctttg gagtatttgt agcttctaata ttttgaaatg actgaattaa gaatttggat 120
 gcttgctctt ttggttggtt tgcctaaaat ccagcccaca atccagtcgt ctcttgggag 180
 agggaggtgc ctgcaaact ttcataataac gaatgtgctt gaggtgctt aactctggac 240
 tagtctcaga tctcaaacct gcactacacg aggaggcata cttttgcttc atctggacat 300
 ttagaataact gtaaccttgc tgccgttctg ttagattgct aactacgtcc cccgtctcca 360
 atttggctct ccttaggcga taggatttgt cgtttttaac ggcaataaac ttgacaacac 420
 cagaatccaa gttttacttg aaaagctcgg cagaatacac agtggtgtga caaaaacaa 480
 cagcaaaggg ttcctttgtg caatgacaaa cggtaaaaat gctgtaacgt tgaagaataa 540
 ctatttccac gcaagaacct cctgcttgac tgtgtat 577

<210> 32
 <211> 688
 <212> DNA
 <213> mouse

<400> 32
 ggtgatctcg ctccatccgt tctctttctac ttctggagag tgccacacac gggatcaagt 60
 acaacggagc cactggagag ttgccctatc cacgcagttc gctgtgatgg agtgggtggac 120
 tgcaaaatga agcagcgata gagctgggct gtgtcagggt cgactgggac aagtccctcc 180
 tgaaagtota ctctgggtct tctggcgagt ggcttctgt ctgcagcagc gagctggaac 240
 gacactgact ccaagaggac ctgccagcag ctgggattct gacagcgctt accgaacaac 300
 tgaggtagcc cactagagac tgtcaccagc agcttcttga ctctccgaat acgacaccac 360
 caatccagga aagcctctac aggtcgcaat atccttcccg gcggtaatgg tctcccatcc 420
 agtgttccca ctgtgggttg agagcctatg accggggcga tcgtgggagg cggtctgaa 480
 cctcggagag caagtgcgcc ctggctaagt tagcctgcac ttccggcaact acccacattc 540
 tgtggcgcca cacttcatcg atagcccagt gtgttctcca ccggttgcca ccgttttttg 600

02973.00035
 LBRI-147
 LIO-81

tgaccccgca	acaacctctt	aacaagtgac	aacacctttt	tccaccacaa	atgtcccacg	660
accacaagt	ccttctcccc	aactcttg				688

<210> 33
 <211> 614
 <212> DNA
 <213> mouse

<400> 33						
ccagatcatc	atcaacggca	actacacaga	tgaacaggat	gactatgaca	ttgccctcat	60
caggctgtcc	aagccctga	ccctgtcagc	tcacatccac	cctgcctgcc	tcccgatgca	120
cggtcagacc	ttcggcctca	atgagacctg	tggatcacgg	gcttggcaaa	accaaggaga	180
cagatgagaa	gacatctccc	ttcctccgag	aggttcaggt	caacctcatt	gacttcaaga	240
agtgcaatga	ctacttggtc	tatgacagct	accttacccc	aaggatgatg	tgtgccgggg	300
atctacgagg	agggagggac	tcctgccagg	gagacagtgg	aggacctctc	gtctgtgagc	360
agaacaatcg	ctggtacctg	gcagggtgtca	ccagctgggg	cacaggctgt	ggccagaaaa	420
acaagcctgg	tgtgtacacc	aaagtgacag	aagtacttcc	ctggatttac	agaaagatgg	480
agagtgaggt	acgattccgg	aaatcttaac	catgtcctcc	tcaogtagct	gactgctatg	540
aagatcctgg	gcacagggat	ggggccattt	gcagccatct	ggtacagtgg	acaacaagca	600
cctttggttc	tccc					614

<210> 34
 <211> 751
 <212> DNA
 <213> Homo sapiens

<400> 34						
aagcctggag	gactcttccc	ctcagagacc	atggagaggg	acagccacgg	gaatgcatct	60
ccagcaagaa	caccttcaga	ctggagcatc	tccagcccag	gcattctccag	ctgggacacc	120
tccaggccgg	gcattctccag	cccaggcatc	actttccagg	tcctcatcct	ggcaggatcat	180
catccgccag	gtcagcctcg	gtgacaacct	ccccaaccag	agtgtacctt	gttagagcaa	240
caccagtggg	ggctgtacct	atccgatcat	ctcctgccag	gtcagcacca	gcaaccaggg	300
ccacagtgga	gagcccaggt	acgagcctga	ccaagttaa	ctgagcaggg	agggccagaa	360
gcagctaccg	actcatcgga	gtgcagtgtc	cactcctcat	tgccctggat	ggtttacgct	420
catcatcctc	ttccagttct	ggcagggcac	acagggatca	aggtcacaa	gagcaagatg	480
tgtgagagct	tgteccaaag	cacgcctgtt	cgcttgtgca	cggggtgtat	gggacttcca	540
aagactgaag	aggtgacaga	cgctgtgcta	gcgtgaggta	ttgactggga	ccaacgtctc	600
tgttttaaaa	tcttactctg	ggtccttcca	atcagtggga	tcccatctgt	agcagcacct	660
gggaattgac	tctactacag	agaagactgc	cagcgagtgg	gatcaaagag	gtccccggga	720
cacgaggtgg	ccacaggatt	ggcaaagatt	a			751

02973.00035
 LBRI-147
 LIO-81

<210> 35
 <211> 1230
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(1230)
 <223> n = A,T,C or G

<400> 35
 atgacccagc tgtctgcttc tttttctcta gtccagttct ggcagnncca cacagnnacc 60
 aggtacaagg agcagaggga gagctgtccc aagcacgctg ttcgctgtga cgggggtggtg 120
 gactgcaagc tgaagagtga cgagctgggc tgcgtgaggt ttgactggga caagtctctg 180
 cttaaaatct actctgggtc ctcccatcag tggcttccca tctgtagcag caactggaat 240
 gactcctact cagagaagac ctgccagcag ctgggtttcg agagtgtca cgggacaacc 300
 gaggttgccc acagggattt tgccaacagc ttctcaatct tgagatacaa ctccaccatc 360
 caggaaagcc tccacaggtc tgaatgccct tcccagcggg atatctctct ccagtgttcc 420
 cactgcggtgac tgagggccat gaccgggagg atcggtgggag gggcgctggc ctcggtatagc 480
 aagtggcctt ggcaagttag tctgcacttc ggcaaccacc acatctgtgg aggcacgctc 540
 attgacgccc agtgggtgct cactgccgcc cactgcttct tcgtgaccgc ggagaaggtc 600
 ctggagggtc ggaagggtga cgcgggcacc agcaacctgc accagttgcc tgaggcagcc 660
 tccattgccg agatcatcat caacagcaat tacaccgatg aggaggacga ctatgacatc 720
 gccctcatgc ggctgtccaa gccctgacc ctgtccggtg agggaaatctg cactccccgc 780
 tctcctgccc ccagcccca gcacctctg cagccctcgc acttgtcagc atctgtcaac 840
 tcatatcccg gccccaaagc ttctgcagac aagacatccc ccttcctccg ggaggtgcag 900
 gtcaatctca tcgacttcaa gaaatgcaat gactacttgg tctatgacag ttaccttacc 960
 ccaaggatga tgtgtgctgg ggaccttcgt gggggcagag actcctgcca gggagacagc 1020
 ggggggcctc ttgtctgtga gcagaacaac cgctggtacc tggcaggtgt caccagctgg 1080
 ggcacaggct gtggccagag aaacaaacct ggtgtgtaca ccaaagtgac agaagttctt 1140
 ccctggattt acagcaagat ggaggcgagg tgcgattcag aaaatcctaa ccagctggcc 1200
 tgctgctctg cacagcaccg gctgctgtga 1230

<210> 36
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Random oligonucleotide

<400> 36
 tcaactgact agatgtacat ggac 24

02973.00035
 LBRI-147
 LIO-81